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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/522,359	03/09/2000	Wadood Hamad	A-6756	3106

7590

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EXAMINER

FERGUSON, LAWRENCE D

ART UNIT

PAPER NUMBER

1774

DATE MAILED: 06/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/522,359

Applicant(s)

HAMAD ET AL.

Examiner

Lawrence D Ferguson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other:

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**DETAILED ACTION**

**Response to Amendment**

1. This action is in response to the amendment mailed April 5, 2002.

Claims 1-8 are pending.

**Claim Rejections – 35 USC § 103(a)**

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 3-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caldwell (U.S. 5,876,792) in view of Conforti et al. (U.S. 5,620,819) in view of Li et al (U.S. 5,061,545) for the reasons set forth in paragraph 10, in the previous office action, mailed January 24, 2002.

**Claim Rejections – 35 USC § 103(a)**

4. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ungar et al. (U.S. 4,520,062) in view of Conforti et al. (U.S. 5,620,819) in view of Li et al (U.S. 5,061,545) for the reasons set forth in paragraph 12, in the previous office action, mailed January 24, 2002.

***Response to Arguments***

5. The arguments in regards to rejection under 35 USC 103(a) as being unpatentable over Caldwell (U.S. 5,876,792) in view of Conforti et al. (U.S. 5,620,819) in view of Li et al (U.S. 5,061,545) have been considered but are unpersuasive. Applicant argues Caldwell does not disclose paper having a web made of fibers in the form of yarns or staples because the paper is not the web, but a backing for the web and the method of applying the polymer to a web including shear-thinning and web stretching, is inapplicable to cellulose fiber networks, such as paper. This is not true, because Caldwell also discloses the methods of the patented invention are applicable to sheets or webs such as paper(s), where polymer is applied to the paper (column 5, lines 44-49), which renders the shear-thinning and web stretching applicable to cellulose fiber networks, such as paper. Applicant further argues there is no teaching or suggestion to combine an abrasion-resistant layer with the disclosure of Caldwell which provides the use of a barrier layer, not an abrasion layer, on a web. The barrier layer of Caldwell is equivalent to an abrasion layer because Caldwell teaches the improved barrier qualities increase durability of the fibrous web material resulting in giving the fibrous web a structure which resists abrasion. Conforti teaches the use of abrasive resistant polymers within paper formed material containing web material. Applicant argues the polymer of Li is non-uniform and not discontinuous and there is no disclosure of a discontinuous polymer matrix increasing durability. Li teaches a discontinuous polymer distribution (column 9, line 35) and supports this teaching in Figure 3. Li also teaches the polymer impregnated non-uniform fibrous web is distributed to enable the web to maintain its integrity (column 9, lines 42-47), which obviously results in an increased durability.

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Applicant argues Caldwell's polymer matrix is a protective layer and to apply such a protective layer in a discontinuous manner would render it useless. Although Caldwell may make known coatings, the invention is directed to thinnable polymer composition into a porous web where the polymer composition is applied onto a surface of the web having structural elements. This argument lacks merit because Applicant provides no support for this argument.

The arguments in regards to rejection under 35 USC 103(a) as being unpatentable over Ungar et al. (U.S. 4,520,062) in view of Conforti et al. (U.S. 5,620,819) in view of Li et al (U.S. 5,061,545) have been considered but are unpersuasive. Applicant argues neither Ungar nor Conforti disclose a polymer material impregnated into a cellulose fiber network web. Ungar discloses a thermoplastic abrasion-resistant substrate consisting of an thin web and cellulose, where thermoplastic material consists of polymeric material. Additionally, Conforti teaches a network formed by a polymer (column 7, line 54) which has abrasion resistance. The combined references teach a polymer material impregnated into a cellulose fiber network web because it would have been obvious to the average artisan to include the polymer of Conforti in the thermoplastic abrasion resistant substrate consisting of a thin web and cellulose of Ungar because Conforti teaches the conventional use of using polymeric material in paper formed web material that have abrasion resistant properties. Applicant argues the application of an abrasion resistant coating in a discontinuous manner would render it useless and the combination of Li with Ungar would be inoperative. This argument lacks merit because Applicant provides no support for this argument. Applicant does not provide any experimentation or research that would lead the average artisan to render the prior art useless or inoperative.

### Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is (703) 305-9978. The examiner can normally be reached on Monday through Friday 8:30 AM - 4:30PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. Please allow the examiner twenty-four hours to return your call.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2351.



Lawrence D. Ferguson  
Examiner  
Art Unit 1774

CYNTHIA H. KELLY  
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